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24 November 2015

Sarah Zorn
Planning and Economic Development
25 West Fourth Street, Ste. 1100
St. Paul, MN 55102

Project No.: 15689.00
Re: Structural Condition Review of the building at 216-218 Bates Ave.

Dear Sarah:

We visited the existing structure at 216-218 Bates Ave. on Thursday, November 19th, 2015. The purpose of our visit was to form an opinion of the building condition and to identify any areas of damage, deterioration, or deficiency and to assist the owner in planning the future of the buiding. The following is a summary of our observations and opinions:

Scope
This report concerns only the structural frame and elements that are an integral part of the load resisting system for the building. We did not observe and report on the building electrical systems, mechanical systems, fire protection, egress, and life safety compliance with the building code.

Our review concerned the basement level and the foundation walls that could be observed directly within that space, any visible roof systems, any visible wall structures, and any visible beams or joists. Observations that were performed are considered a cursory "walk-through" of the building. The performance of the structural system and framing elements was judged by visual observation only. This work should not be considered a detailed investigation of the building or of specific elements of the building framing system. During our walk through no finishes were removed to expose structural systems.

Calculations were not performed on the total building system nor were the apparent load capacities of the floor or roof determined as a part of this report.

Qualifications of the Personnel
Joe Cain P.E. is the author of this report, the lead investigator, and the Structural Engineer of Record (SER). Joe has 30 years of experience in the field of structural engineering and has performed condition reviews as the SER on numerous buildings that are similar to the subject building. Travis Stanley E.I.T. and Dave Hadler, engineering technician, have aided in the observation work, analysis, and research and have contributed to the preparation of the report.

Methods of Investigation
The method of investigation was by casual observation and was limited to those structural elements that were exposed to view. However, much of the structural system was covered by finish material, in which case the performance of the finish material was assumed to reflect the performance of the structural elements to which the finish material was attached. No attempt was made to perform an exhaustive investigation of all structural elements. No finish material was removed or damaged to expose the underlying structural elements. No existing as built documents were available for our use. Nor were we made aware of any previous reports related to the structural condition of the building or investigation of building elements.

Building Description
The structure at 218 Bates is one story with a partial basement. The structure at 216 Bates is two stories. The two addresses are connected. This report considers both addresses. The original structures were constructed on or about 1912. The roof of 218 Bates is constructed with hand framed lumber joists which are supported on concrete masonry unit bearing walls at the building perimeter. 216 Bates has concrete joist and clay tile flooring.

We did not go down to the basement due to safety concerns. The foundation walls are assumed to be constructed with rubble limestone masonry below grade in the original section of the house. The first floor is assumed to be supported at the interior of the basement level with heavy timber beams, supported on timber columns that extend to the basement floor. The basement floor areas are expected to be concrete slab on grade. It is assumed that the building walls and interior columns rest on spread footings.

Observed Conditions
In general, the structural elements of the building framing and foundation were judged to be in poor condition. There were conditions of deterioration or damage noted in the observations and will be described below in more detail.

Water damage is found throughout the building. Mold is on almost all of the walls and roof joists that we observed and most of the rugs that we found on the ground were very wet. Picture 1 shows a few of the joists that have been damaged. Picture 2 shows walls and other various items that are damp and damaged due to water infiltration. The roof joists rest on a steel beam that runs through the center of the building. The steel beam is rusting, as shown by Picture 3. The steel beam has an estimated section loss of 5%. As the beam continues to rust there will be more of its section lost. A large hole was found in the roof which can be seen in Picture 4. It is likely that there is extensive damage, other than the pictured hole, throughout the roof that is causing the water to infiltrate the building.

Picture 1 – Water Damage to Roof Joists

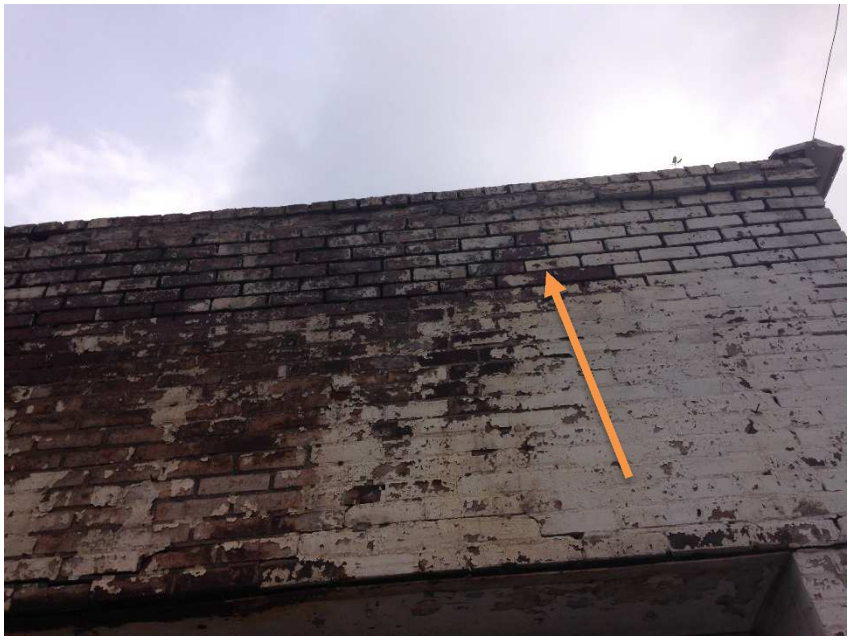
Picture 2 – Water Damage to Walls

Picture 3 – Rusting Steel Beam

Picture 4 – Hole in Roof

The lintel above the garage door at the northwest wall of the building is rusted and deflecting. The steel lintel has an estimated section loss of 5% due to rust. As the lintel continues to rust there will be more of its section lost. The deflection is causing some of the clay masonry bricks above it to crack. Picture 5 shows the lintel. The parapet above the garage is tipped outward at the top. The parapet damage is likely due to water infiltration and freeze thaw and/or inadequate tie to the building. Picture 6 shows the underside of the parapet. With the exception of the leaning parapet, the exterior walls appeared to be plumb. Picture 7 shows the profile of the northeast wall.

Picture 5 – Deflecting Lintel at Northwest Wall



Picture 6 – Leaning Parapet at Northwest Wall

Picture 7 – Northeast Wall

Summary
The building at 216-218 Bates Ave. is in generally poor condition. As stated above, we made no attempt to remove finish material. Our opinions are based on what was in plain sight. The problems that were seen are likely more extensive than what we observed but were covered with finish materials. In addition to what was previously listed, there could be more issues that we could not observe. Repairs are possible, but it would likely be relatively costly. A more thorough structural review would be required in order to give details for the repair of any specific structural system.

Limiting Conditions:
The opinions and recommendations contained in this report are based on a cursory observation of the building. No attempt was made to perform an exhaustive investigation of all conditions and building elements. It is possible that conditions exist that cannot be discovered or judged as a result of this limited nature of investigation. The work provided in the preparation of the report concerns the structural system only and is not intended to address mechanical, electrical or plumbing systems, fire protection, or handicap accessibility. The owner is encouraged to discuss these items with a building official and other design professionals for guidance and recommendations.

If you have any questions concerning the above, please do not hesitate to contact us.

Sincerely
Mattson Macdonald Young, Inc.

Travis Stanley, E.I.T.

Dave Hadler, Engineering Technician

Joe Cain, P.E.

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Joe Cain, P.E.

11/24/2015 MN Reg. No. 40119